

REMARKS

This is intended as a full and complete response to the Final Office Action dated February 11, 2009, having a shortened statutory period for response set to expire on May 11, 2009. Applicants submit this response to place the application in condition for allowance or in better form for appeal. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1-4, 6, 7, 9-11, 14-16 and 28-30 are pending in the application. Claims 1-4, 6, 7, 10, 11, 14-16 and 28-30 remain pending following entry of this response. Claims 1, 6, 11 and 28 have been amended. Claim 9 has been cancelled. Applicants submit that the amendments do not introduce new matter.

Further, Applicants are not conceding in this application that those amended (or canceled) claims are not patentable over the art cited by the Examiner, as the present claim amendments and cancellations are only for facilitating expeditious prosecution of the claimed subject matter. Applicants respectfully reserve the right to pursue these (pre-amended or canceled claims) and other claims in one or more continuations and/or divisional patent applications.

Statement of Substance of Interview

On April 2, 2009, a telephonic interview was held between Gero G. McClellan (attorney of record), Johnny Lam (attorney for Applicants), the assistant Examiner and the Supervisory Examiner. The parties discussed the cited references including *DiDomizio*. Claim 1 was discussed. The parties also discussed proposed amendments to claim 1. In particular, the Examiner suggested amending claim 1 to clarify "level of expansion". The proposed amendments are reflected in this response. No agreement could be reached at the time of the interview.

Claim Objections

Claim 6 is objected to because of the following informalities: duplicate "the" at line 17 of claim 6 should be deleted. Appropriate correction is required.

With this response, Applicants have amended claim 6 to correct the informalities as suggested by the Examiner. Accordingly, Applicants respectfully submit that the objection is obviated.

Claim Rejections - 35 U.S.C. § 103

Claims 1-4, 6-7, 9-11, 14-16, 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over *DiDomizio et al.*, U.S. Patent No. 6,453,312B1 (hereinafter *DiDomizio*) and in view of *Ryan et al.*, U.S. Patent No. 6,421,675B1 (hereinafter *Ryan*).

Applicants respectfully traverse this rejection.

As an initial matter, the Examiner made an error in citing the *DiDomizio* reference. The correct patent number is 6,523,028B1, instead of 6,453,312B1.

The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. See MPEP § 2141. Establishing a *prima facie* case of obviousness begins with first resolving the factual inquiries of *Graham v. John Deere Co.*, 383 U.S. 1 (1966). The factual inquiries are as follows:

- (A) determining the scope and content of the prior art;
- (B) ascertaining the differences between the claimed invention and the prior art;
- (C) resolving the level of ordinary skill in the art; and
- (D) considering any objective indicia of nonobviousness.

Once the *Graham* factual inquiries are resolved, the Examiner must determine whether the claimed invention would have been obvious to one of ordinary skill in the art.

Respectfully, Applicants submit that the Examiner has not properly characterized the teachings of the references and/or the claims at issue. Accordingly, a *prima facie* case of obviousness has not been established.

For example, the Examiner suggests that *DiDomizio* teaches "at least one condition includes at least one base search term providing a keyword to search for in an

unstructured text field of the relational database.” Specifically, the Examiner asserts as follows:

As per claim 1, DiDomizio teaches . . . “at least one condition includes at least one base search term providing a keyword to search for in an unstructured text field of the relational database” at Col. 6 lines 48-67 and Figs. 2-7

Final Office Action, page 2. However, the cited portion of *DiDomizio* fails to disclose anything at all about “at least one condition includes at least one base search term providing a keyword to search for in an unstructured text field of the relational database.” To illustrate, a relevant portion of *DiDomizio* cited by the Examiner is set forth below:

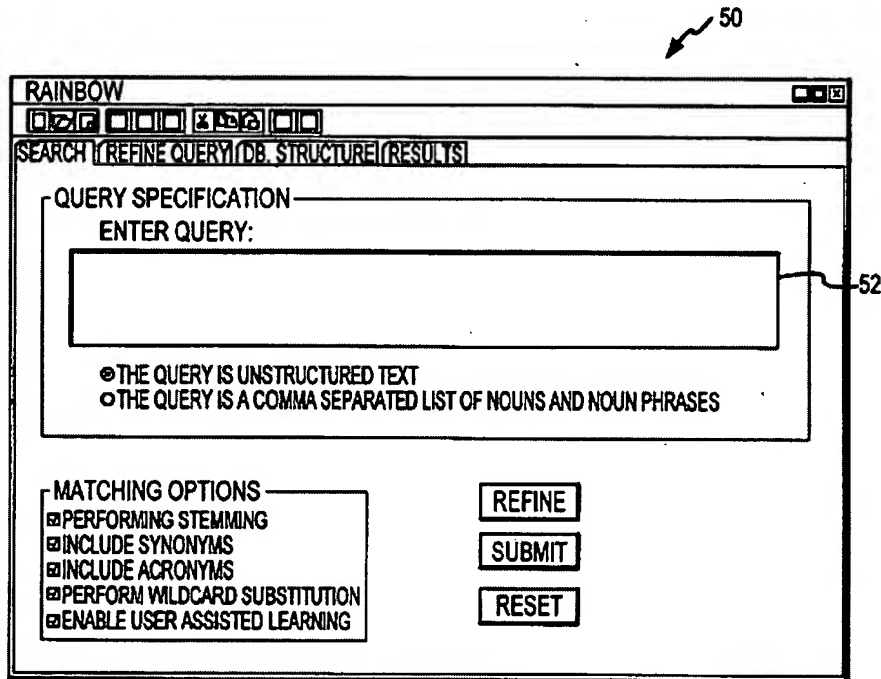


FIG.3

Generally, the method and system of the present invention allows users or clients to enter an unstructured query that the system expands and generalizes and then matches to actual database tables. Users may interact with the system in three different ways. First, the users may enter an unstructured query, which may be a list of important terms as in a typical search query or, alternatively, the query may be a natural language

question or sentence. Second, users may select the nouns, noun phrases, synonyms, and/or related terms that the user expects to appear in the table names and/or attribute or field names of the target databases. In this regard, after the unstructured query is received, nouns and/or noun phrases in the query may be identified, and the query may be generalized and/or expanded to return to the user as many relevant words as possible. From these returned words, the user may select the terms he or she expects to find in the database attributes and/or table names in the system. And third, the user may form Structured Query Language code ("SQL") by clicking on tables and attributes presented to the user. In this regard, the database matches that the system believes correspond to the query are presented to the user and given the tables, the user may form a pictorial query from which the SQL code is automatically generated. Thereafter, the data itself may be displayed to the user.

DiDomizio, Figure 3 and col. 6 lines 48-67. Respectfully, the cited portions of *DiDomizio* merely teaches that a text query may be entered by a user in the form of unstructured text (e.g., in a GUI). *DiDomizio* is silent as to "at least one condition includes at least one base search term providing a keyword to search for in an unstructured text field of the relational database." By merely suggesting that *unstructured text* is taught, the Examiner is wholly ignoring substantive limitations of the claims (namely, the underlined limitations), thereby fundamentally misconstruing the claims. Therefore, *DiDomizio* fails to teach "at least one condition includes at least one base search term providing a keyword to search for in an unstructured text field of the relational database." Accordingly, Applicants respectfully submit that the rejection is defective and should be withdrawn.

Further, the Examiner suggests that *DiDomizio* teaches "obtaining one or more parameters associated with the base search term, wherein the one or more parameters associated with the base search term comprise a user-specified level of expansion." Specifically, the Examiner asserts as follows:

As per claim 1, *DiDomizio* teaches . . . "obtaining one or more parameters associated with the base search term, wherein the one or more parameters associated with the base search term comprise a user-specified level of expansion" at Col. 7 lines 25-35 and Figs. 3-5

Final Office Action, pages 2-3. However, the cited portion of *DiDomizio* fails to disclose anything at all about "obtaining one or more parameters associated with the base search term, wherein the one or more parameters associated with the base search term

comprise a user-specified level of expansion.” To illustrate, the portion of *DiDomizio* cited by the Examiner is set forth below:

Such user query input screen 50 allows the user to enter an unstructured query in the query field 52, illustrated in FIG. 3. Via this user query input screen 50, the user may select which particular generalization and/or expansion functions should be utilized in expanding the query, such as perform stemming, include synonyms, include acronyms, perform wild card substitution and enable user assisted learning (to be described in more detail hereinbelow). In this regard, the system 10 also includes a noun/noun phrase extractor 22, a stemmer 24 and a synonym generator 26. The noun/noun phrase extractor 22, which is commercially available from various vendors, is adapted to identify important or key nouns and noun phrases in a user's query.

DiDomizio, col. 7 lines 23-35. That is, the cited portion of *DiDomizio* merely teaches that a user may select (via a GUI) expansion functions, such as “include synonyms.” Respectfully, *user-selected expansion functions* do not teach or suggest “a user-specified level of expansion.” That is, while a user in *DiDomizio* may dictate a type of expansion to be performed (e.g., whether to include synonyms, etc.), *DiDomizio* discloses nothing at all about the user being able to *specify a level of expansion* that the user desires. Therefore, *DiDomizio* fails to teach “obtaining one or more parameters associated with the base search term, wherein the one or more parameters associated with the base search term comprise a user-specified level of expansion.” Accordingly, Applicants respectfully submit that the rejection is defective and should be withdrawn.

Furthermore, the Examiner suggests that *DiDomizio* teaches “prior to executing the relational database query, modifying the relational-database query to contain one or more additional conditions based on the one or more expanded search terms.” Specifically, the Examiner asserts as follows:

As per claim 1, *DiDomizio* teaches . . . “prior to executing . . . the relational database query, modifying the relational database query to contain one or more additional conditions based on the one or more expanded search terms” at Col. 8 lines 25-65 and Figs. 3-5.

Final Office Action, pages 2-3. However, the cited portion of *DiDomizio* fails to disclose anything at all about “prior to executing the relational database query, modifying the relational-database query to contain one or more additional conditions based on the one or more expanded search terms.” Instead, the cited portion of *DiDomizio* merely

teaches that a user may modify unstructured text in a GUI box. See, e.g., *DiDomizio*, col. 8 lines 38-40 (“[U]sers may enter new queries in the Query box 66 and may either choose to expand and generalize those terms and return to the screen to continue adding terms . . . or may choose to Submit [the unstructured text as a] query.”). Respectfully, *unstructured text* (even if the unstructured text may be submitted as a “text query”) is not the same as a “relational-database query,” as required by the claims. On this basis alone, the rejection is defective and should be withdrawn. Further, even assuming, *arguendo*, that a “relational-database query” is generated in *DiDomizio* based on the *modified, submitted unstructured text*, *DiDomizio* nevertheless fails to teach that the relational-database query is *modified*. Generally, *DiDomizio* teaches expanding an “unstructured text query” from a GUI box (such as element 52 of Figure 3, reproduced above):

Generally, the method and system of the present invention allows users or clients to enter an unstructured query that the system expands and generalizes and then matches to actual database tables. Users may interact with the system in three different ways. First, the users may enter an unstructured query, which may be a list of important terms as in a typical search query or, alternatively, the query may be a natural language question or sentence.

. . . .

As a result, the present invention is particularly useful in aiding users in accessing data from distributed, structured databases, whereby users need not know the structure or even the existence of the databases needed to complete their queries. When querying the system, users need not know of the existence of relevant data sources currently available in the system, need not understand the schema of the databases, need not know SQL, and are not limited to formatting queries using drop-down menus. Rather, users may enter an unstructured query, select from synonyms and related terms automatically generated by the system to expand the user's initial query, and then generate a pictorial query using database tables the querying system suggests as relevant. After forming and submitting this query, users are presented with the corresponding data from actual databases.

DiDomizio, col. 6 lines 48-55, col. 11 lines 38-52 (emphasis added). That is, *DiDomizio* at best teaches that the “unstructured text query” in the GUI box (such as element 52 of Figure 3, reproduced above) may be modified. Therefore, *DiDomizio* fails to teach “prior to executing the relational database query, modifying the relational-database

query to contain one or more additional conditions based on the one or more expanded search terms.” Accordingly, Applicants respectfully submit that the rejection is defective and should be withdrawn.

Further, *DiDomizio* is generally directed to unstructured text queries, which may be “a list of important terms as in a typical search query or, alternatively, the query may be a natural language question or sentence.” See *DiDomizio*, col. 6 lines 53-55. Respectfully, *unlike a relational database query*, neither “a list of keywords” nor “a natural language question or sentence” is executable by a query engine of a relational database. In other words, the Examiner’s interpretation of the claims would yield “prior to executing the unexecutable query, modifying the unexecutable query to contain one or more additional conditions based on the one or more expanded search terms.” That is, the Examiner’s interpretation would lead to a contradictory result of *modifying an unexecutable query to produce a second unexecutable query, prior to executing the unexecutable query*. Consequently, the Examiner is mischaracterizing the claims at issue. Therefore, *DiDomizio* fails to teach “prior to executing the relational database query, modifying the relational-database query to contain one or more additional conditions based on the one or more expanded search terms.” Accordingly, Applicants respectfully submit that the rejection is defective and should be withdrawn.

Further, in the interest of facilitating prosecution, Applicants have amended independent claims 1, 6, 11, and 28 to clarify “level of expansion”, as suggested by the Examiner during the interview. Applicants respectfully submit that the claims, as amended, are not taught by the references, individually or collectively. Accordingly, Applicants respectfully submit that the rejection is obviated.

Therefore, the claims are believed to be allowable, and allowance of the claims is respectfully requested.

Conclusion

Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

If the Examiner believes any issues remain that prevent this application from going to issue, the Examiner is strongly encouraged to contact Gero McClellan, attorney of record, at (336) 698-4286, to discuss strategies for moving prosecution forward toward allowance.

Respectfully submitted, and
S-signed pursuant to 37 CFR 1.4,

/Gero G. MCCLELLAN, Reg. #44227/

Gero G. McClellan
Registration No. 44,227
PATTERSON & SHERIDAN, L.L.P.
3040 Post Oak Blvd. Suite 1500
Houston, TX 77056
Telephone: (713) 623-4844
Facsimile: (713) 623-4846
Attorney for Applicants